



## AWADUKT PP TL

PIPE SYSTEM FOR TRENCHLESS INSTALLATION

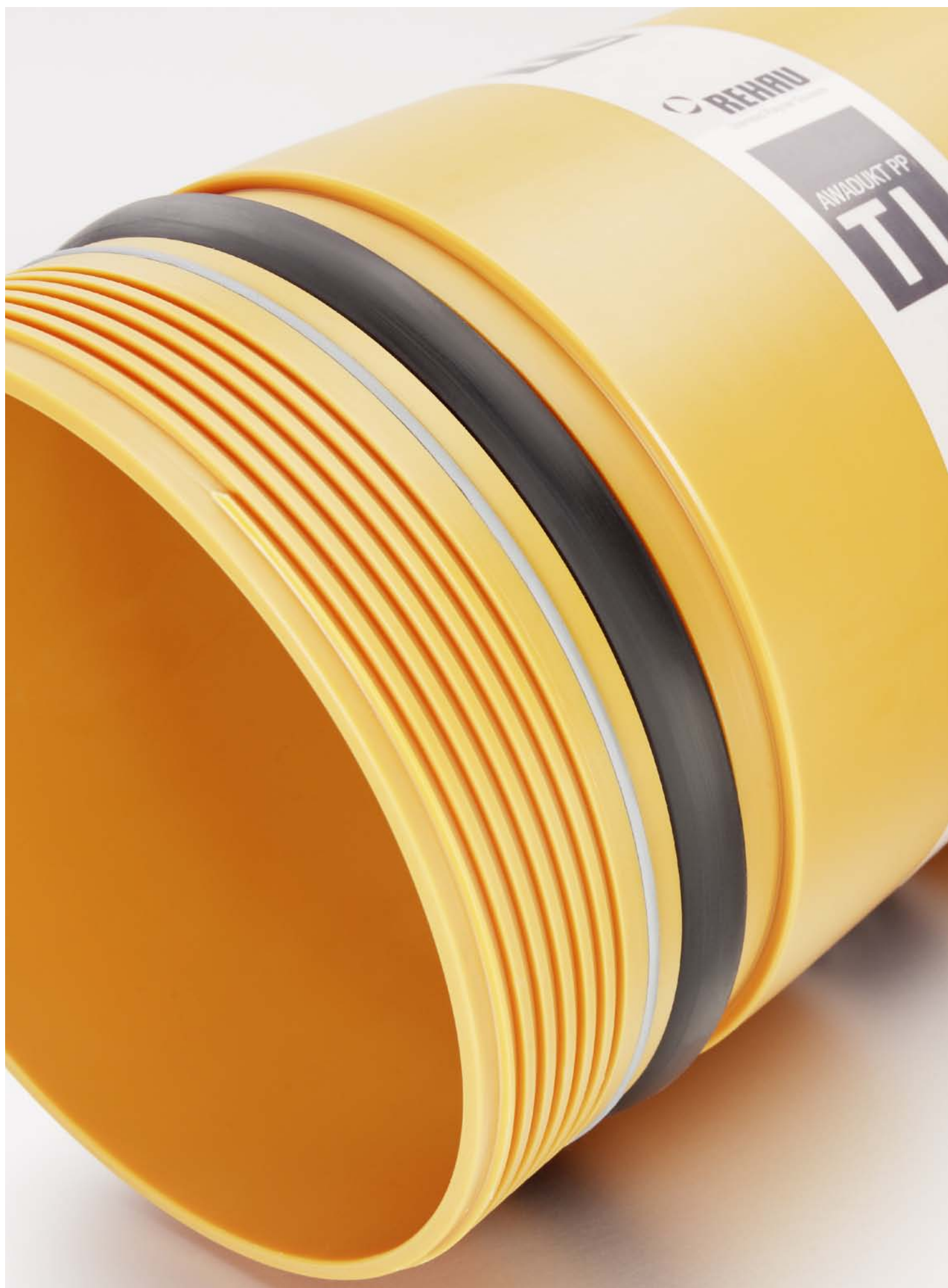
# THE REHAU SEWER SYSTEM SOLUTION

## SAFETY FOR GENERATIONS

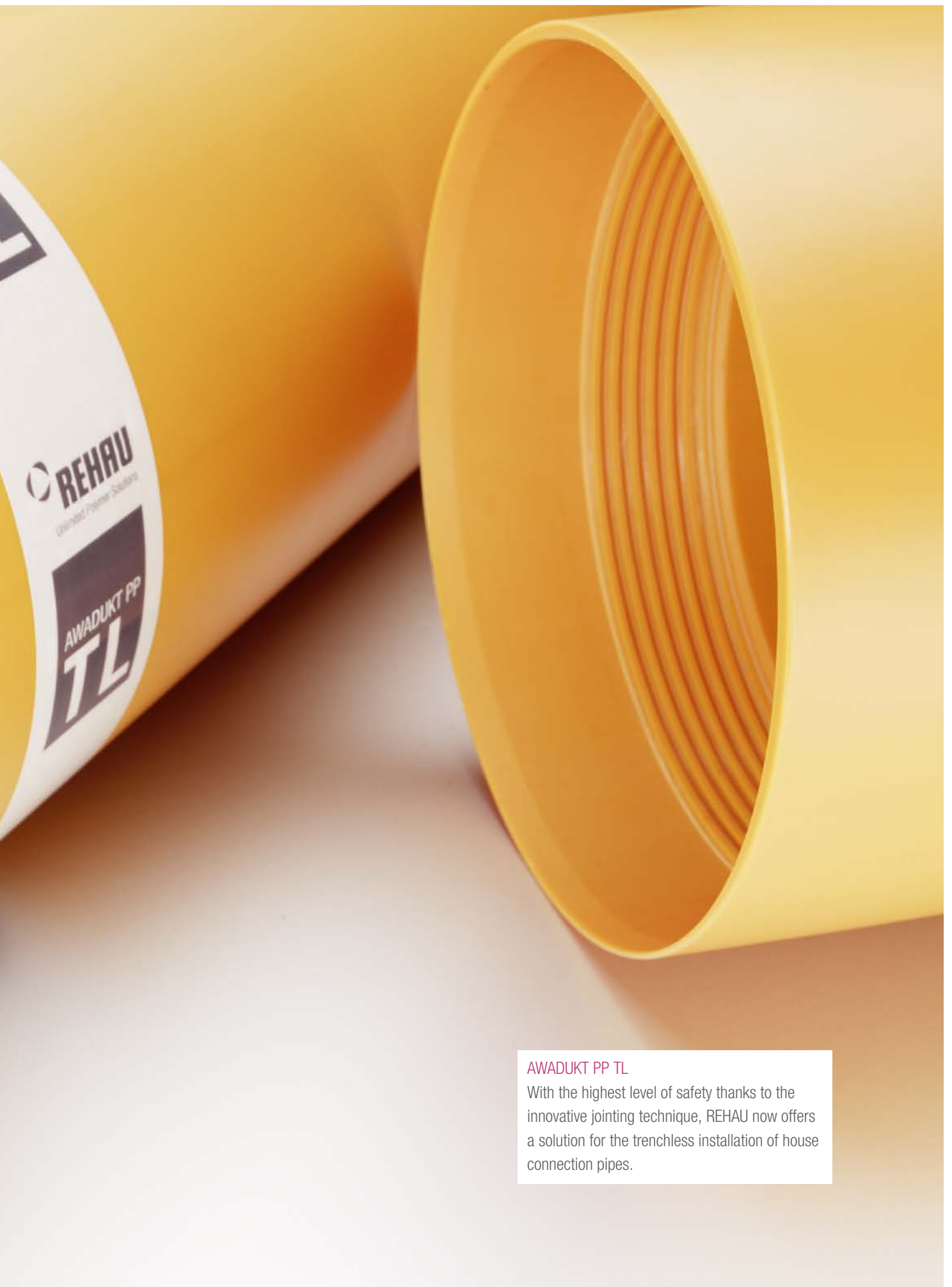




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**AWADUKT PP TL**

With the highest level of safety thanks to the innovative jointing technique, REHAU now offers a solution for the trenchless installation of house connection pipes.

# THE MOST IMPORTANT INFORMATION FIRST

## PROPERTIES - AREAS OF APPLICATION - BENEFITS



### Detachable joint thanks to screw thread

The length of the pipe can be easily varied. This allows for a versatile installation of AWADUKT PP TL.

## Properties:

### High impact strength

- Minimising transport and storage damages
- Rinsable at high pressures up to 340 bar

### High ring stiffness > SN 20

- Absorbs all static loads

### Permanent leak-tightness even in the event of deformations and bends

- Double seal with lip seal as the primary seal and Q-TE-C as a secondary seal
- Leak-tight up to a minimum of 2.5 bar test pressure

### Joining technique resistant to tension and shearing (thanks to trapezoidal thread)

- The absorption of high tensile and pressure forces by the connection is confirmed by the SKZ

### High chemical and thermal stability

- Use of filler-free polypropylene to DIN EN 1852
- Operative temperature range from -20 °C to +90 °C (for a short period of time)

### Quick installation

- Thanks to smooth outer surfaces
- No bulky socket connections

### Environmentally friendly and recyclable

## Areas of application:

### Increase of the static loading capacity

### Increase of the chemical resistance

Can also be installed on construction sites in winter. When the pipelines are built over with e.g. concrete slabs for high moving loads

Can also be used if the groundwater level is high

### Installation procedure

- Pipe jacking
- Steered auger boring
- Burstlining
- Short-pipe / Single-pipe relining

## Benefits:

### Time and cost saving

- Space-saving installation method without obstructing the flow of traffic
- Significant potential cost savings up to 30 % compared to the open-cut construction method
- Long depreciation periods as for new pipes
- Low maintenance

### Safety

- Quality management
- Tested pipe quality

### Permanent function

- Secured new pipe quality

### Kind to the environment

- Accessibility to the adjoining owner's property is largely ensured
- Traffic areas and historic structures are protected and the discharge of harmful emissions is prevented



AWADUKT PP TL: MADE IN GERMANY

made in



# SERVICES

## FOR AWADUKT PP TL

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### Technical support

We will advise you personally on the telephone and on site. Arrange an appointment with our technical specialists. They will support you in overcoming your project challenge.



### Quality assurance through internal and external monitoring

We have our sewer product range regularly tested and monitored by independent institutes.



### Text for invitations to tender

In order for you to receive the product you requested, we support you with detailed invitation to tender texts in Word or Gaeb format.



### Technical downloads

We offer you forms to calculate the structural design and hydraulic measurement as well as inspection sheets and assembly, installation and laying instructions to download: [www.rehau.de/tiefbau](http://www.rehau.de/tiefbau)



### 10 year warranty

We are confident in our product solutions. We therefore offer you far more than the warranty services required by law. 10 year warranty including installation and removal costs.



### Structural designs

Our technical specialists carry out project-related static calculations to ATV-DVWK A128 - free of charge. With the proof of structural stability you are always on the safe side.



### Instruction on the construction site

We will come to you on the construction site and will instruct you and your colleagues in our products professionally.

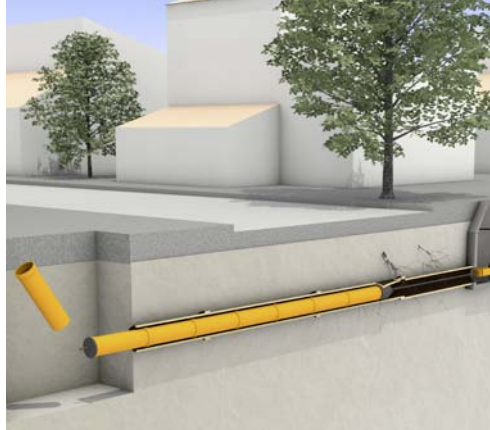




# AREAS OF APPLICATION

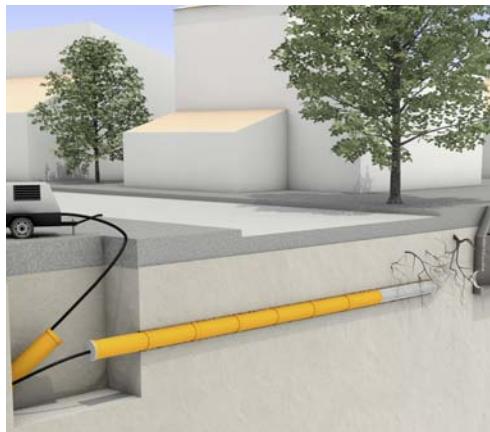


AWADUKT PP TL is both suitable for renovation procedures as well as new installations for example in crowded urban areas.



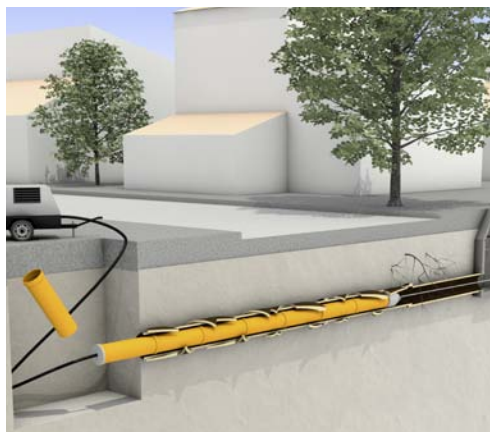
## Renovation procedure RELINING

- Use of the existing route without costly approvals
- Easy installation



## Renovation procedure CALIBRE BURSTLINING

- Use of the existing pipe route without costly approval
- Increase of the static loading capacity of the pipeline
- Reduction of the deviation of position, offset sockets in the pipeline



## New installation SOIL DISPLACEMENT

- No excavated material
- Protection of surfaces
- No traffic jams
- Quick installation



# PRODUCT PROPERTIES AND ADVANTAGES

## AWADUKT PP TL – UNBEATABLE IN INSTALLATION AND USE



The established ground and any possible tree population will not be affected by the installation - a clear advantage in terms of environmental protection.

### High ring stiffness

AWADUKT PP TL distinguishes itself by its high stiffness of a minimum of  $20 \text{ kN/m}^2$  (SN20) giving it a large capacity compared to standard sewer pipes and significantly exceeds the specified requirements in terms of static loading capacity. Subsequent ground settlements caused by construction work near the pipeline, deviations of position or increased moving loads in the area of the pipeline are no longer an issue.

### Short installation times

The pipes can be continuously pushed or inserted into the sewer pipes even if the pipe walls are rough or broken without getting caught. Two workmen can screw together the DN 200 pipes measuring one metre in a few minutes, which can be pushed up to 80 meters into the sewer without additional tools. It is possible to speed up the installation process thanks to the reduced friction of the pipes on the internal wall of the sewer.

### Economically efficient and environmentally friendly

Depending on the conditions on site, AWADUKT PP TL offers considerable potential cost savings of up to 30 % thanks to its trenchless installation compared to the conventional, open-cut construction method. Disturbances caused by noise and unpleasant odours are reduced to a minimum. Accessibility to adjoining owners' properties continues to be possible. If the pipeline is already present the pipe route can be used for a new pipeline.





### A variety of applications

The tensile and shear strength of the threaded joints confirmed by accredited institutes offer particular advantages, which allows for the pipe to be pushed into the sewer and if required, also offer support by means of a simultaneous insertion of the pipes.

This does not only make the sewer pipe system ideally suited for lining but also for the jacking and burstlining technique.

### Leak-tight

The double seal guarantees that the pipe joints are leak-tight.

Whilst the lip seal as a primary seal ensures the sealing function under standard installation conditions up to 2.5 bar, the secondary Q-TEC-C seal provides additional safety under extreme conditions such as for example for large bends.

### Extreme impact strength

In addition to the stiffness, the extreme toughness and resistance to impact stresses is to be mentioned, which allow the pipes to be installed even during the cold time of year.

### Robust and flexible

AWADUKT PP TL proves its high capacity in terms of the mechanical resistance, flexibility and scratch resistance during storage on the construction site, transport or handling in the excavation pit, when establishing the connection or when pushing in or inserting the pipes into worn sewers. Even if the pipe ends tilt when establishing the connection and when applying an adequate counter-pressure, this does not necessarily lead to the pipe ends breaking thanks to the material's flexibility.





# TEXT FOR INVITATIONS TO TENDER

## AWADUKT PP TL

### Performance schedule

Delivery of a jacking pipe made of filler-free polypropylene with female and male thread for a longitudinally stable connection.

Pipe joint smooth inside and outside.

The external diameter matches the standard fittings.

EPDM lip seal, additional seal made of swellable elastomer.

Proven min. ring stiffness  $20 \text{ kN/m}^2$ , highly abrasion-resistant, without addition of fillers.

Colour: Orange brown

Laying lengths: 1 m and 0.5 m

Jacking pipe, e.g. REHAU AWADUKT PP TL product with screw thread or equivalent type.

Quoted product/type:

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To be completed by bidder

1.0 m



You will find the invitation to tender texts for AWADUKT PP SN10 on the internet at:

[www.rehau.de/tiefbau-ausschreiben](http://www.rehau.de/tiefbau-ausschreiben)

# PRODUCT RANGE AND PRICE LIST

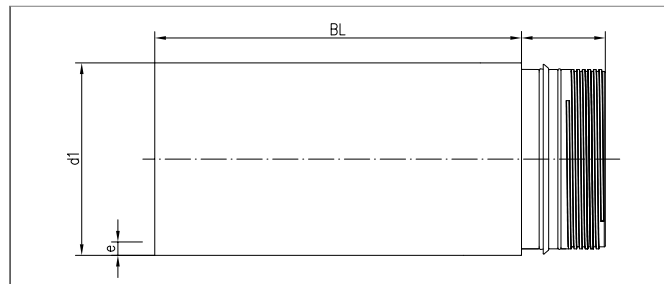
## AWADUKT PP TL

### AWADUKT PP TL

#### Pipes with longitudinally stable threaded joint

Material: RAU-PP 2300

Colour: Orange



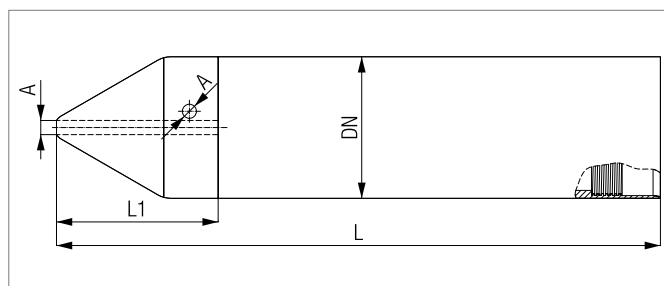
Mat.no.	DN/OD	BL [mm]	d1 [mm]	e [mm]	Weight [kg/m]	Unit/pallet	€/unit
13106411001	160	500	160	9	3.80	40	34.10
13106511001	160	1000	160	9	3.80	20	41.50
13106611001	200	500	200	11	5.80	12	45.20
13106711001	200	1000	200	11	5.80	12	57.00

Thrust plate/draw heads on request

### AWADUKT PP TL draw head

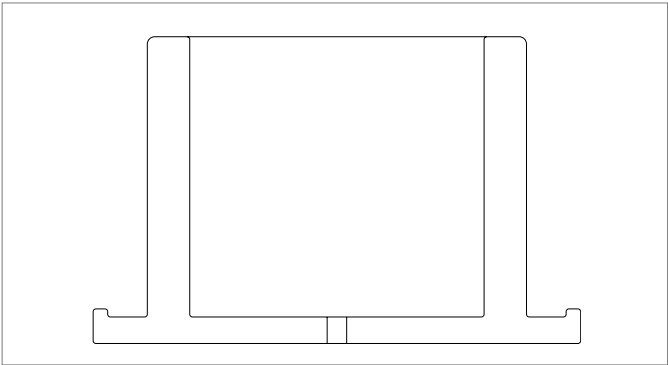
Material: RAU-PP 2300

Colour: grey + orange brown



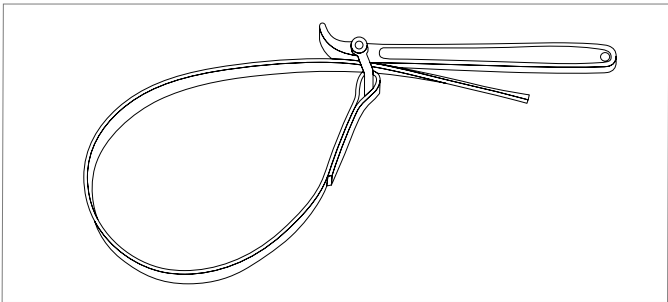
Mat.no.	DN/OD	L [mm]	L <sub>1</sub> [mm]	ØA [mm]	Weight [kg/unit]	Packaging unit	€/unit
13109311001	160	700	200	16	2,4	loose	on request
13109411001	200	730	230	16	3,6	loose	on request

AWADUKT PP TL thrust plate



Mat.no.	DN/OD	d <sub>1</sub> [mm]	d <sub>2</sub> [mm]	h [mm]	Weight [kg/unit]	Packaging unit	€/unit
1 310951 1 001	160	185	140	150	1.8	loose	on request
1 310961 1 001	200	220	174	150	2.2	loose	on request

AWADUKT PP TL strap wrench



Mat.no.	Weight [kg/unit]	Packaging unit	€/unit
1 310971 1 001	0.6	1	73.00

The strap wrenches always have to be ordered in pairs.